

Western Kentucky Minerals
Ohio County, Kentucky
P Ridge Processing Plant

ALTERNATIVES ANALYSIS

I. INTRODUCTION

The purpose of the proposed P Ridge Processing Plant is to allow for crushing and washing of coal from other Western Kentucky Minerals (WKM) sites, to prepare the product for delivery to utility consumers. The proposed action is needed to allow the continued operation of the several mines, which will produce approximately 3 million tons of coal from the Pleasant Ridge area. The project also is needed to meet the energy demands of the region, as well as to stimulate the local economy. WKM must meet its project purposes in a manner that returns a reasonable profit on investments in land and mineral rights, site development, infrastructure, and equipment while being environmentally responsible and complying with regulatory requirements. Clean Water Act Section 404(b)(1) requires that all reasonable alternatives be considered for projects that impact Jurisdictional Waters of the United States. As discussed in federal guidelines established for this regulation (45 FR 85344), an alternative is considered practicable if it may be implemented considering environmental impact, cost, existing technology, and logistics as they relate to the project's purpose. An alternative is considered reasonable if it is practicable and feasible from a common sense technical or economic standpoint. The applicant first considered all alternatives, then eliminated those deemed non-practicable. Reasonable alternatives were then selected from the remaining practicable alternatives; the Preferred Alternate was then chosen from the practicable alternatives once baseline data for potential jurisdictional waters had been collected and reviewed. With current technology, there are essentially no other practical options for coal waste disposal than burial. This report will further show the selected site and configuration is the only practicable choice.

II. NON-PRACTICABLE ALTERNATIVES CONSIDERED

Alternate Sites

Not being dependent on the physical location of coal seams, prep plants are probably the most flexible mining facility to site; they also generally have small footprints and lesser environmental impact than the extraction sites that feed them. Instead, the economics of resource transport must be considered in addition to environmental effects. There was a limited pool of potential sites close enough to the P Ridge mines that are actively producing coal or will do so in the near

future. The proposed site was unique in that it allows for the development of a haul road with minimal impacts, use of existing roadways for site access and final product delivery, it is located on previously-mined area, and can utilize an abandoned mine pit as a water supply/final clarification pond. These significant and obvious benefits allowed the use of a heuristic, rule-of-thumb selection process rather than a more rigorous site comparison.

III. PRACTICABLE ALTERNATIVES CONSIDERED

No-Action Alternative

The no-action alternative for the project was found to be unacceptable as it would not allow WKM to continue operations at the P Ridge mine complex or deliver the resource to the marketplace. Considering the capital investment in obtaining surface and mineral rights for the existing mines and speculative properties, not allowing development of the mine would place an unreasonable financial burden on the company. The local economy also would be adversely impacted by the loss of coal production. The project would create 5 direct positions and extend employment for 45 positions at the P Ridge mines as an average salary of \$60,000. This nearly doubles the median personal income in the county, and is 44% higher than the median household income. Eight truck drivers and eleven barge dock employees also are directly dependent on operation of the prep plant facility.

Not installing the waste facility would result in the significant losses of tax monies; approximately \$1.1 million in coal severance taxes would be lost annually, as well as \$30,000 in income taxes and \$55,000 in equipment and property taxes. When considering the anticipated facility lifespan of 8 to 10 years, the potential loss is significant at \$9.5 million - \$11.9 million. A final consideration is the existence of contracts with several energy partners. Owensboro Municipal Utilities and Kentucky Utilities Central City are expecting deliveries of coal from WKM. In addition to loss of revenue to the company, electric power customers in these communities potentially face an increase in rates if these providers must find alternate sources of coal.

Impacts: None

Criteria for Exclusion: Does not meet project plan and purpose

Alternate Facility Footprints

The general location of the site and mine method were selected based on the previously discussed rationale. Once this was decided, two plant boundaries were considered. Potential environmental impacts of both are essentially the same, though planned avoidance of several resources has resulted in minimizing disturbance. Project impacts are approximately 123 ft of intermittent, 1312 ft of ephemeral stream, and 0.324 ac of wetland. Generally, streams have low habitat quality, elevated conductivity, and are of improper geomorphic form for the landscape. The boundary was revised to the preferred alternate to avoid impacts to adjacent residents; the southern boundary was reduced by approximately 10% to 32 acres.

IV. PREFERRED ALTERNATIVE AND CONCLUSION

The facility will operate by taking deliveries of raw coal and intermixed overburden from the haul road to the north; deliveries will be stockpiled in this area until processing can begin. Conveyors will take the raw material to various facilities to separate coal from overburden, wash the coal, and then crush it to the size desired by the receiving utility. Processed coal will be stockpiled again until loaded into trucks for delivery to the Yellow Banks River Terminal, Owensboro Municipal Utilities plant, or Central City Kentucky Utilities plant. All wash water is planned to come from the abandoned pit onsite; however, it may also serve as the final clarification pond. One temporary sediment pond is proposed onsite, and no discharges of water are anticipated. The entire operation will be placed on an area mined in the 1970's, prior to the promulgation of SMCRA.

The P Ridge Processing Plant location was selected and configured to maximize coal extraction efficiency while minimizing impacts to jurisdictional Waters of the U.S. Proximity to existing and potential mine sites maximize transportation efficiency. The proposed site was particularly advantageous because it allows use of the existing haul road network and an abandoned mine pit. A single temporary sediment pond is proposed for the facility; all runoff will be treated within the permit boundaries and no discharges are anticipated. Streams impacted by facility development will potentially receive significant ecological "lift" over existing conditions by reclamation to current regulatory standards and mitigation and restoration efforts within the project area. The proposed haul road was aligned to take advantage of several existing culvert crossing locations in agricultural fields to minimize impacts. Most project area streams exhibit significant manipulation from previous mining and agricultural manipulation; restored channels will reflect stable, geomorphically correct streams for the proposed post-mining landforms and

hydrologic conditions. Wetlands on-site are smaller, geographically (not hydrologically) isolated features, often by-products of human activities (*i.e.* remnant mine pits). A more diverse, cohesive wetland block will be created during the reclamation phase of the mining operation to offset the impacts to wetlands within the permit boundary. This area will provide a larger wetland area, adjacent to existing avoided wetlands, and will provide higher ecological function and value than what is currently present on-site.

Coal processing at the P Ridge Plant and its delivery it to the marketplace has significant economic benefits. The local economy would maintain high-quality employment for 8 to 10 years with this operation of this mine. In addition to 5 new plant positions, it is anticipated that around 45 persons from the P Ridge mine complex will be retained; these positions will have an average salary of \$66,000. The facility will also ensure the continued employment of 11 people at the Yellow Banks River Terminal and 8 truck drivers. Over the lifetime of the project, the state and county stand to gain \$9.5 million to \$11.9 million in severance, property, and payroll taxes; these significant amounts could fund a number of infrastructure or social projects in the area. The applicant also has existing contracts with Owensboro Municipal Utilities and Kentucky Utilities. Electric power customers potentially face an increase in rates if these providers must find alternate sources of coal.

Overall, the proposed facility location and configuration is believed to be the least environmentally invasive option resulting in the most cost-effective processing and delivery of the natural resource. The facility will accomplish this while maximizing public safety and minimizing its environmental footprint.